

Figure 4B – Surface Geology

Figure 4C – Cross Sections - Surface Geology

105.2 Surface Facilities Maps:

Figure 5 – Proposed Surface Facilities

Map shows the proposed mine and process areas, existing dirt roads, and water drainages that pass through or near the lands to be affected.

Scale 1"= 1000'

Figures 6, 6A and 7, 7A – Kiewit Mine Pre-Mine Topography and Post-Mine Topography

These maps also show the topsoil storage areas and overburden storage areas. No waste water is generated in the mines; therefore no discharge areas are shown. Storm water will be held next to the high walls and no untreated storm water will leave the permit area.

Scale 1"=200'

Figures 8, 8A and 9, 9A – Clifton Shears Mine Pre-Mine Topography and Post-Mine Topography

These maps also show the topsoil storage areas and overburden storage areas. No waste water is generated in the mines; therefore no discharge areas are shown. Storm water will be held in small sumps, settlement pond and no untreated storm water will leave the permit area.

Scale 1"=200'

Figures 10, 10A and 11, 11A – Yellow Hammer Pre-Mine Topography and Post-Mine Topography

These maps also show the topsoil storage areas and overburden storage areas. Waste water is currently being generated at the Yellow Hammer Mine. All water will be held in the pits and no untreated storm water will leave the permit area.

Scale 1" = 200'

Figures 12, 12A and 12B – Process Facilities – General Layout and Detail

Pad, crusher area and process pond & detail of the facilities related to the processing of solutions received from the leach pad.

Pad Design and Construction

The Kiewit leach pad and pond will be approximately 825,000 square feet (about 19.0 acres) and the process area will be about 20,000 square feet (0.5 acres) in size. The Utah Department of Environmental Quality has issued a Ground Water Discharge Permit (See Appendix XV) and approved the design of the leach pad. A construction permit has been written and will be issued in conjunction with this NOI before work on the pad commences. DHG will follow the compliance schedule of the Ground Water Discharge Permit.

Note: The Ground Water Discharge Permit in Appendix XV was approved December 6, 2010 and minor changes to the mine permit boundary and other features have been updated within this NOI.

A continuous liner of 80 mil HDPE plastic will be placed under both the pad and process area. A secondary liner will be installed beneath the process pond with an intermediate geo-net fabric to direct any leaking solutions to a collection sump. The liners will be installed by an independent and licensed contractor. An independent engineering company will conduct QA/QC assurance testing as is standard in the industry. The sub-base may be extracted from a planned onsite disturbed area or imported from a nearby offsite permitted source. Sub-base material will comply with the DEQ Permit requirements.

A berm, a minimum of three (3) feet high, will surround the pad, the area of the solution containment pond and the process area. The HDPE liner will be anchored to the berm in a trench along the outside edge of the berm. The trench will be a minimum depth of one (1) foot.

A four foot layer of 1" minus crushed material, decomposed granodiorite, will be placed over the pad for protection of the plastic liner. Thereafter, based on conditions found during mining, either run of mine or crushed ore (-1" in size) will be placed on the pad in 10 to 20 foot lifts. Overall side slopes of 3H:1V max will be maintained to assure safety and stability. A safety factor of at least 1.3 will be maintained for heap leach slope stability and all other stockpiles. Slope stability modeling for heap leach slopes may be completed based on lab data. If the modeling supports steeper slopes and a factor of safety of 1.3 or greater the slopes can be increased to the supported angle. An Engineer stamped report will be provided to DOGM. The ultimate height of the pad will be no more than 100 feet (less than 100' peak prior to drain down and 80' average during reclamation).

A leak detection/collection system will be put in place to insure monitoring for leaks of process solutions. The leak detection system collection reservoirs will be checked daily during operation and in accordance with a DEQ approved ground water discharge plan. The leak detection system consists of 4" slotted ADS collection pipe, which direct fluids down gradient to the side of the pad

area where it connects with HDPE pipe. This pipe will connect to a 12" pipe with individual collection reservoirs.

Appendix XI, page 5 (Storm Water Management Plan) contains details to manage and divert storm water from the facility area during a 6 hour 100 year storm event.

Pond Design and Construction

The pond is designed as simply a down gradient containment of process solutions from the pad. The maximum height of the pond wall on the downstream side will be 19'. This is to contain the solutions at maximum depth of 16 feet and allow three feet of free board. The pond will be lined (as is the pad) with 80 mil HDPE plastic installed and tested by independent contractors. In addition, the pond will have a secondary containment membrane consisting of 40 mil HDPE. Details are included in Appendix XV – Ground Water Discharge Permit. *Note: The Ground Water Discharge Permit in Appendix XV was approved December 6, 2010 and minor changes to the mine permit boundary and other features have been updated within this NOI.*

The pond will be built to be used as a holding area to contain pregnant solution flows from the pad prior to pumping these solutions through the carbon columns. Barren solutions will be pumped directly to the heap. Any exposed cyanide solutions in the pond area will be covered with bird netting (See Appendix VII). Appendix XI – Storm Water Management Plan includes information regarding to the capacity of the pond to contain storm water, information detailing storm event potential, and containment and diversion structures.

DHG expects to use approximately 100,000 gallons (0.155 cubic feet per second (cfs)) of groundwater per day to provide makeup water for the leach pad and other mine site uses. This water would come from a well that would be drilled on the south side of Rodenhouse Wash bottom land, west of the toe of the leach pad. While depth to groundwater is not known with certainty, the well may be several hundred feet deep.

The Utah State Engineer has granted a water right (No. 18-735) to DHG for this well, which has not yet been drilled. While DHG applied for the right to divert 1.0 cfs (724 acre-feet annually) of groundwater from the proposed well, the State Engineer has limited the annual withdrawal rate to 400 acre-feet. In his 2010 Order approving the water right, while acknowledging the limited amount of groundwater data and relevant hydro geologic studies in this general area, the State Engineer stated that "...precautions must be taken to avoid overtaxing the water resources" (Utah Division of Water Rights 2010). By placing the 400-acre-foot annual diversion limit on the DHG's water right, the State Engineer took those precautions. Further, the anticipated 100,000

106.4 Nature of Material, Including Waste Rock/Overburden, and Estimated Tonnage

Kiewit Deposit	5,000 tons of ore per day, 200 days = 1,000,000 tons/year, total about 2,000,000 tons 7,500 tons of waste per day, 200 days = 1,500,000 tons/year, total about 3,000,000 tons
Clifton Shears	50,000 tons of ore for one year, total 50,000 tons
Deposits	40,000 tons of backfilled waste per year total 40,000 tons Concurrent backfilling of excavated ore deposits
Yellow Hammer Deposit	100,000 tons of ore per year, total 200,000 tons 100,000 tons of waste per year, total 200,000 tons

Drill samples collected from the Kiewit Mine suggest that the ore and waste are dominantly oxidized, igneous rock known as granodiorite (also called quartz monzonite) or stock work quartz veining. None of the samples collected from the Kiewit ore body or the Clifton Shears have contained significant amounts of sulfur (more than 1%). Approximately 95% of the ore to be placed on the heap will come from the Kiewit deposit. The average total sulfur of the core samples collected from the Kiewit Mine was 0.05% (See Appendix V, Certificate of Analysis 11-360-00075-01, Sheet 5 of 5, page 33) Acid base analysis suggests that this ore and the associated overburden, pit floor and high wall have very low acid producing potential and high capacity to consume acid. The Kiewit ore sample assays suggest that the rocks are generally acid consuming. See Appendix V, Page 27. Observations documented in the notes recorded during drilling (See Appendix XXII – Dumont Drill Logs) of drill core and cuttings from the Kiewit Mine report no significant sulfides were visible within the boundary of the proposed pit. These observations suggest that further preliminary testing may not be needed. During mining, DHG will collect a minimum of 8 samples from every 40' depth interval within the pit and separate rock type for Acid Base Analysis. Test results will be kept on site for future review. No mining will occur any deeper into Yellow Hammer prior to Acid Base Testing.

Approximately 2.5% of the ore to be processed on the Kiewit Heap will come from the Clifton Shears. Samples from the Clifton Shears are also very low in sulfur. Assay results from samples of the ore to be mined show average sulfur levels of 0.14%. Samples of ore from the Clifton Shears contain significant amounts of arsenic and other metals such as silver and lead which will

become mobile during leaching (See Appendix XXIII). This ore will be crushed and agglomerated if necessary, then loaded and leached on the heap. It will be isolated at the high point of the Southeast corner of the leach pad and capped with a 40 mil HDPE cover to prevent future meteoric water contact. The operator will place coarse, crushed ore from the Kiewit at a minimum depth of 24" over the liner prior to stacking additional ore from the Kiewit over the leached ore from the Clifton. This will serve to protect the liner from damage. The operator agrees to do this in a manner which protects the liner from punctures. As the Kiewit Ore is stacked above and down slope from the encapsulated material, it will serve to further stabilize the Clifton ore on the pad. *Note: No ore from the NE ¼ of Section 25, Township 8 South, Range 18 West S.L.B.M. will be placed on the cyanide leach pad.* DHG will collect and submit additional samples for characterization analysis within 30 days of a request to do so by the Division. Results will be available on site.

Rock containing sulfides, if encountered at the Clifton Shears or Kiewit Mine, will not be placed on the heap as sulfides will consume active cyanide, and therefore the metals cannot be recovered using a cyanide leach process. Specific criteria for determining if ore is Potentially Acid Generating (PAG) are set forth in Appendix V of this Notice. Visible sulfides will be recognized as an indication of PAG, but are not listed as the basis of such characterization. The operator will regularly test ore and waste in order to identify PAG rock. According to Appendix V, any PAG rock will be evaluated and categorized as either PAG waste or PAG ore. PAG rock is defined as rock having a Neutralization Potential (NP) less than 3 times the Acidification Potential (AP), and a NP less than 20KgCaCO₃/Metric Tonne more than its AP. PAG ore will be transported to an offsite facility for processing, or encapsulated by non-sulfide mineral bearing material within a designated waste dump. Waste rock and other encapsulation material will have at least a net neutralization potential of 20 or a neutralization potential of at least 3x acidification potential. (See Appendix V –Geochemical and Analytical Data) During mine closure, this stockpiled ore will be encapsulated within 10 feet of suitable material.

PAG waste rock from all of the mines in this permit will be handled in accordance with the waste rock handling plan identified in Appendix V and VA of this Notice. PAG waste rock will be stacked temporarily within the source pit, or remain in the pit or in designated cells within the waste rock dump. PAG waste will then be encapsulated within suitable waste rock as required in the waste rock handling plan.

Net Carbonate Value testing may also be used to help identify PAG material. Definition for PAG is based on test results with a NCV value of less than -0.1 and an Acid Generating Potential (AGP) of less than -0.1. Suitable

depth interval and any different rock type encountered during mining. This rock will be tested in accordance with Sobek Acid Base Analysis (ABA) and/or Net Carbonate Value (NCV). Definition for PAG is based on test results with a NCV value of less than -0.1 and an Acid Generating Potential (AGP) of less than -0.1. Suitable encapsulation material will have a NCV greater than 5.0. This rock will be transported to a permitted facility or encapsulated in the waste dumps in accordance with the methods described in Appendix V - Section 4.4 Waste Rock Management Plan of this NOI. The minimum thickness of the encapsulating material will be a 10' buffer in all directions. The operator will provide a soil base and a one foot cap for each encapsulation cell having a minimum permeability of 1×10^{-6} cm/s. The cap thickness may be increased to two foot thick with a minimum permeability of 1×10^{-5} cm/s. The cap will be placed to shed incidental infiltrated precipitation water. PAG waste will be encapsulated within cells of waste rock from the mine from which the waste originates.

Water Storage/Treatment Ponds

The leach pad, process area pond and a perimeter berm are designed to prevent run-on water from storm events. The berm around the pad area will prevent any storm water runoff coming off the staging area from running into the pad and pond areas. The process pond has adequate capacity to hold the runoff from a 48 hour 100 year precipitation event. The capacity of the pond is more than 6 million gallons (see Section 106.2 – Pond Design). Estimated runoff from areas within the pad area during a 48 hour 100 year event is estimated to be about 1,754,000 gallons. The process pond will have the capacity to contain that additional volume if a break-down of the run-on protection berms should fail.

Any storm water that may report to the pits will be contained within the area by both the pit depressions and surrounding safety berms. A storm water management plan has been prepared (Appendix XI).

Discharges

No water or process solutions will be discharged from the site. Check dams and a storm water settlement pond will be built to prevent up gradient silt from leaving the permit area. (See Appendix XI – Storm Water Management Plan, SWP-3 and Figure 18 of the NOI). The storage capacity of the catch basin and the pit retention bermed areas is sufficient to recharge hourly during a 24 hour 10 year precipitation event. The diversion channels, culverts and settlement pond are designed for peak flows during a 6 hour 100 year event.

- If the surface owner of the land affected desires to convert an artesian drill hole into a producing and/or monitor well, the landowner will provide written notification to DOGM accepting responsibility for the ultimate plugging of the drill hole.
- Holes that encounter significant amounts of non-artesian water shall be plugged by 1) placing a 50-ft cement plug immediately above and below the aquifer(s) 2) or filling from the bottom up (through the drill casing) with a high grade bentonite/water slurry mixture. The slurry shall have a Marsh Funnel viscosity of at least 50 seconds per quart prior to the adding of any cuttings.

VI R647-4-109 Impact Assessment

109.1 Surface and Ground Water Systems

Surface Water

No perennial streams or intermittent waters have been or are expected to be impacted by mining operations at the Kiewit Project. Any precipitation and/or run-off into the pits from sheet flow, which enters the pits from the hillsides or drainages above, will be contained within the pit and be collected along the pit face. Any runoff in the area of the leach pad will be diverted by berms and collected in the catchment basin located below the process area. A storm water management plan is included as Appendix XI, and hydrology is discussed in Appendix XIX – Water Resource Report. In addition to the storm water management plan, all applicable areas of the project will incorporate berms, surface roughness, check dams and other measures to limit the amount of sediment erosion and transportation by surface water.

Ground Water

Based on limited drilling by Dumont Mining, the depth to ground water in the area of the heap leach pad is 300 feet to 400 feet. No ground water has been encountered in the shallow drill holes. The mining activities will not impact ground water quality or resources. The process facilities are designed and built with a liner to insure that process water does not escape the facility and impact ground water. A Ground Water Discharge Permit is included as Appendix XV. This permit includes a hydrologic report. A Water Resource Report is included as Appendix XIX. The overburden and ore of the proposed mines is also very low in sulfur and has been tested to demonstrate that acid generation potential is unlikely (See Appendices V, V-A, XXII, and XXIII).

It is unlikely that deleterious materials of a sufficient magnitude will be encountered during mining operations at the Kiewit or Yellow Hammer Mines. It is also unlikely any such materials will pose a threat to groundwater. This is supported with test data and onsite visual reconnaissance of existing mining disturbances of site and regional geology dating back decades showing no signs of acid generation or seepage. Ore from the Clifton Shears, which has elevated levels of arsenic and lead that will be mobile at the high pH of the heap, will be encapsulated as described in section 106.4 – Potentially Acid Generating Waste Rock. However, in the event future ABA or whole rock elemental analysis test results suggest deleterious materials are present in ore or waste, the material handling plan for PAG will be implemented. The plan includes placement of the acid generating materials within a suitable encapsulation of waste rock. These planned actions in concert with the area being in an arid low precipitation zone (located approximately 300 feet above groundwater) will provide a long-term sound practice to protect groundwater.

Ore from the Clifton contains elevated levels of arsenic, lead, and silver which will be mobile at the elevated pH of the heap. The HDPE liner, closed system design, and depth to groundwater will isolate these mobile metals from ground water. After leaching, the Clifton ore on the heap will be capped with a 40mil HDPE cover. Mining activities at Clifton will expose the metals to meteoric water, but rain water is not likely to mobilize a significant amount of metals.

109.2 Wildlife Habitat and Endangered Species

Prior surface disturbances have resulted in sparse vegetation in the area, so a minimal amount of wildlife habitat will be lost as a result of this operation. The general area around the project does see some use by an occasional antelope or mule deer, but no other big game species have been observed in the area. The site is located close to the settlement of Gold Hill.

Other wildlife species that occur in the Tooele County area (BLM 1998) include Golden Eagle, Bald Eagle, Ferruginous Hawk, Kit Fox, Great Basin Rattlesnake, Black Tail Jackrabbit and Cottontail Rabbit, and other small mammals and birds.

Federally listed species that may have the potential to occur in Tooele County include:

Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Threatened
California condor (<i>Gymnogyps californicus</i>)	Endangered/Experimental-Non-Essential
Utah Prairie Dog (<i>Cynomys Parvidens</i>)	Threatened
Western Yellow-Billed Cuckoo	

height of the heap during operations will be 100'. Grading of the heap prior to drain down will result in a height of less than 100'.

Erosion Control

Rodenhouse Wash (a dry stream bed) passes near the leach pad area and the Kiewit mine and waste dump area. Water does flow through this wash during rare intermittent thunder storms and other events. Great care will be taken to see that such flooding does not impact any of the permit areas. A Storm Water Management Plan has been prepared and is included (see Appendix XI). This Plan is based on a 6 hour 100 year precipitation event for the diversion channel, culverts and settlement pond and on a 24 hour 10 year precipitation event for pit retention berms and the catch basin.

There are no defined water channels within the areas of the Kiewit Project planned surface disturbances. All pits will be sloped a minimum of 1% toward the high wall to contain storm water. However, the hillsides adjoining the pits are anticipated to shed water into these pits during precipitation events. Any runoff into the pits will be contained within the pits and collected near the face of the pit.

Air Quality

An Air Quality permit will be issued for the total project by the Utah DAQ. The application to DAQ for the air quality permit was submitted by JBR Environmental on May 8, 2012. The Air Quality Permit addresses mining, crushing, haul roads and generators required for crushing and leaching. Site dust suppression will be with water and/or dust palliatives. A copy of the permit will be submitted for inclusion in Appendix XIV-Contractor Permits.

Public Health and Safety

DHG will minimize the hazards for public safety and welfare during operations. All facilities and operations will comply with MSHA regulations. These measures include:

- Fencing and signing any shafts or tunnels that may exist within the permit area. All mine areas, buildings, crushing equipment, process facilities, and other equipment will be signed to discourage unauthorized or accidental entry in accordance with MSHA regulations.
- Trash, scrap metal and wood, and extraneous debris is disposed of in marked containers that will be picked up monthly and disposed of properly.
- Any exploratory or other drill holes will be plugged and/or capped as set forth in Rule R647-4-108.
- Appropriate warning signs are located at public access points.

- All deleterious or potentially deleterious material, such as fuel tanks and supplies of lubricants and oils, are kept in secondary containment that has 110% of the capacity of the tanks to control any adverse environmental effects of any upset condition.
- A copy of the Spill Prevention, Containment, and Countermeasures Plan (SPCC) will be posted for review at the Process Area Office Trailer.
- Slopes greater than 1.5H to 1V will be adequately addressed for public safety (i.e. berms, fencing, etc.).

This site is located in a remote area where there are few visitors.

Cultural Resources

P-III has conducted a cultural resource survey of the project areas. See Appendix XX – Cultural Resource Report. Future disturbances outside of the current CRS will require an additional CRS.

109.5 Mitigation

Means of protecting surface and groundwater systems, wildlife habitat, and existing soil and plant resources have been discussed in the previous sections. The graves shown on Figure 3 and 3A will not be disturbed. The proposed reclamation of the project is described in detail in the reclamation plan of this NOI.

VII R647-4-110 Reclamation Plan

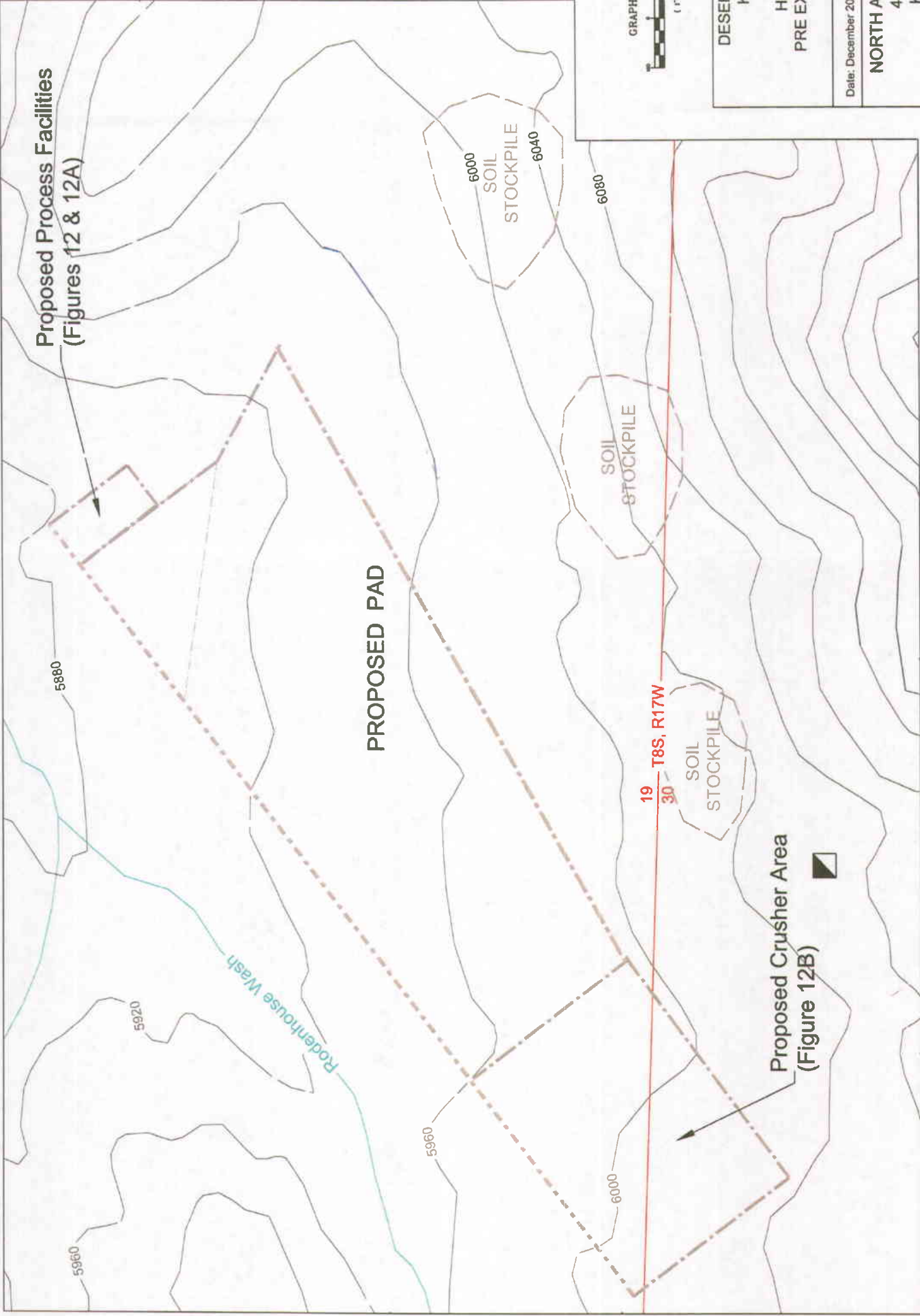
110.1 Current Land Use and Post-Mining Land Use

The current use of the land is as wildlife habitat and livestock grazing. All areas of historic mining which are disturbed by DHG, will be reclaimed. The proposed future post-mine use of the land is wildlife habitat and livestock grazing.

110.2 Reclamation of Roads, High Walls, Slopes, Leach Pads, Dumps, Etc.

Roads

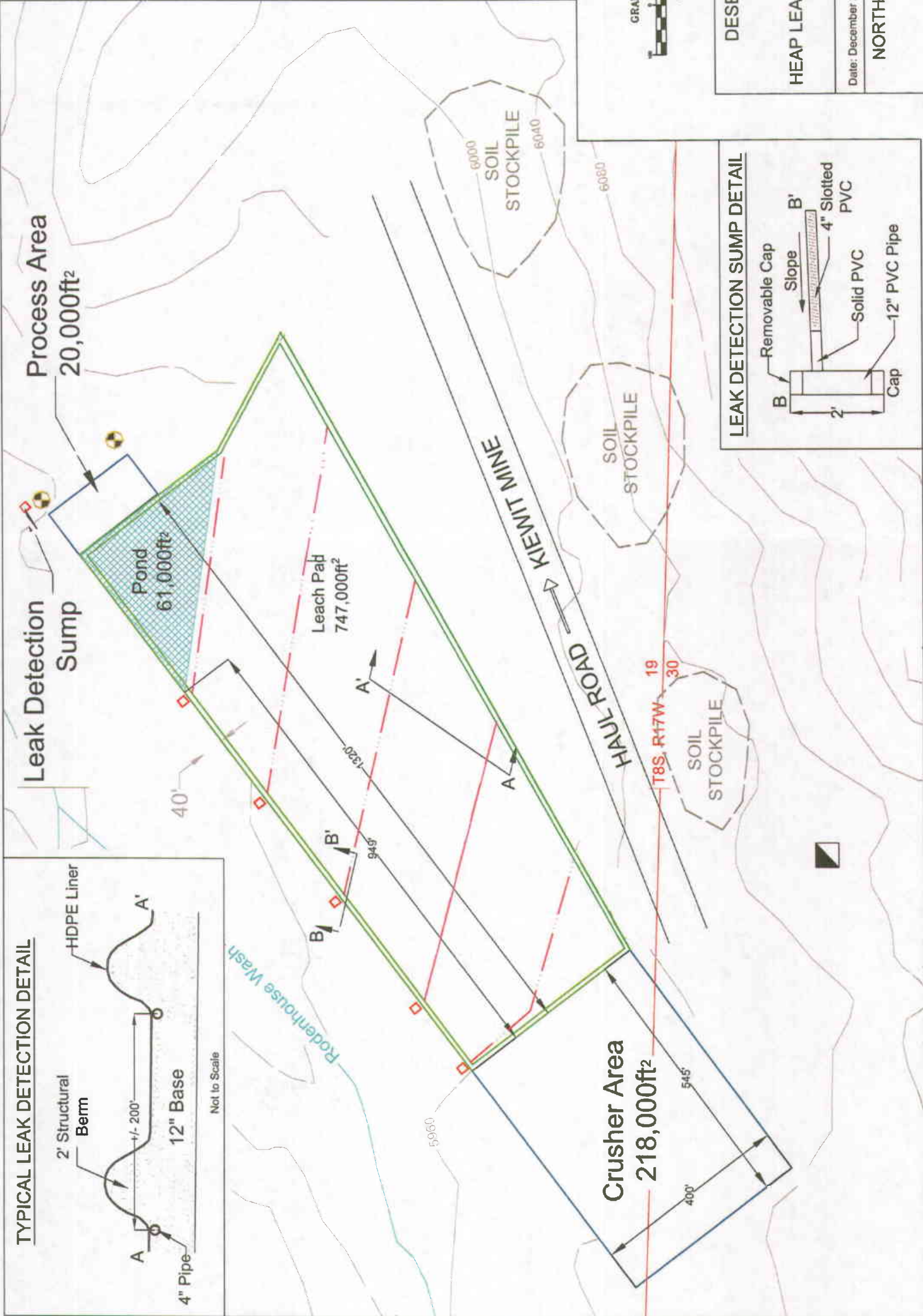
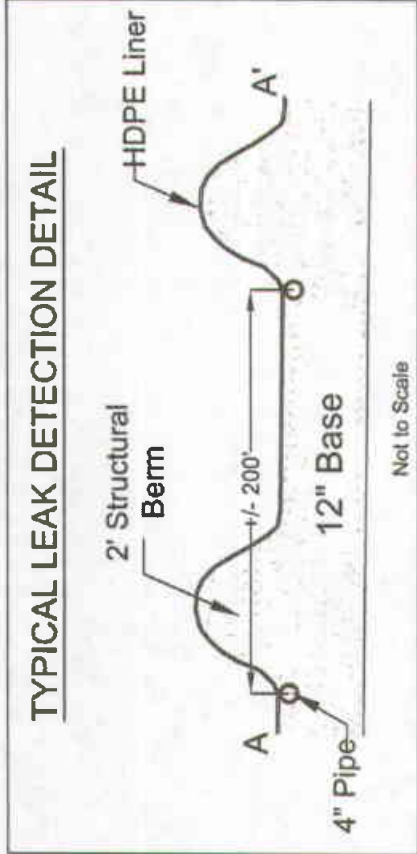
Roads which did not exist prior to this operation will be ripped to remove compaction and seeded. Roads on flat or gently sloping ground will be graded to blend the road crown and ditches with surroundings. Roads cut into steep slopes will be re-graded to blend with the existing adjacent slopes. The slope of re-contoured roads will be away from the road cut. Growth medium which was bladed to the side to form berms, or stockpiled, will be redistributed over the road surfaces prior to ripping. See Figure 19 – Reclamation Treatments.



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DESERT HAWK GOLD CORP KIEWIT PROJECT FIGURE 13 HEAP LEACH PAD - PRE EXISTING TOPOGRAPHY Tooele County, Utah	
Date: December 2010	Kiewit_Figure 13_12-2010
NORTH AMERICAN EXPLORATION 447 N 300 W, Suite 3 Kaysville, UT 84037 801-544-3421	





Legend

4" Slotted Pipe

Leak Detection Sump

Monitor Well

Note: 4" Slotted Pipe are Parallel and +/- 200' Apart to a Maximum of 250'

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DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 14
HEAP LEACH PAD - GENERAL LAYOUT

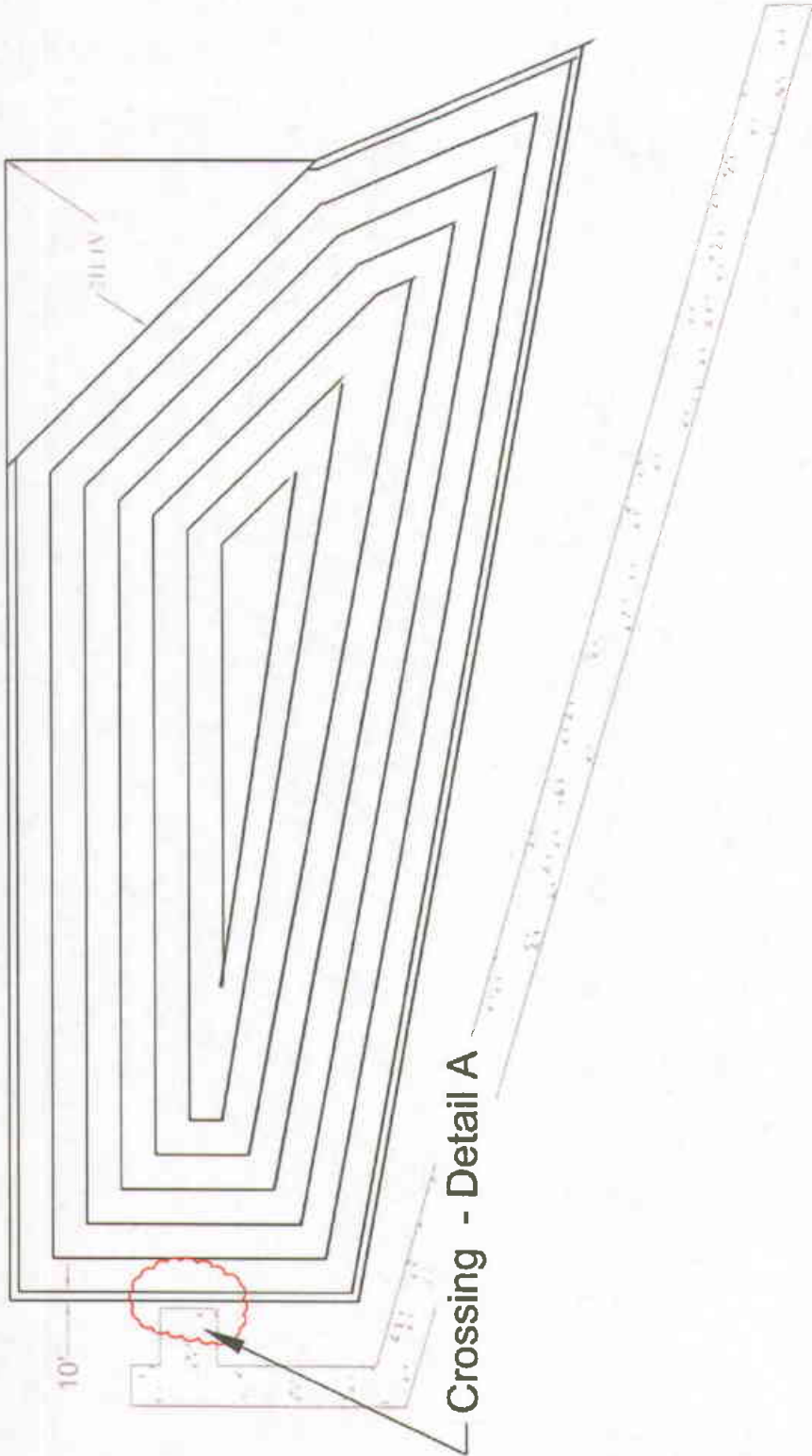
Tooele County, Utah

Date: December 2010 Kiewit_Figure 14_12-2010

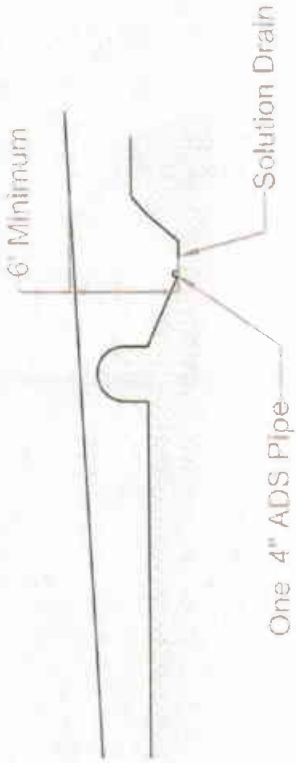
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PLAN VIEW



DETAIL A

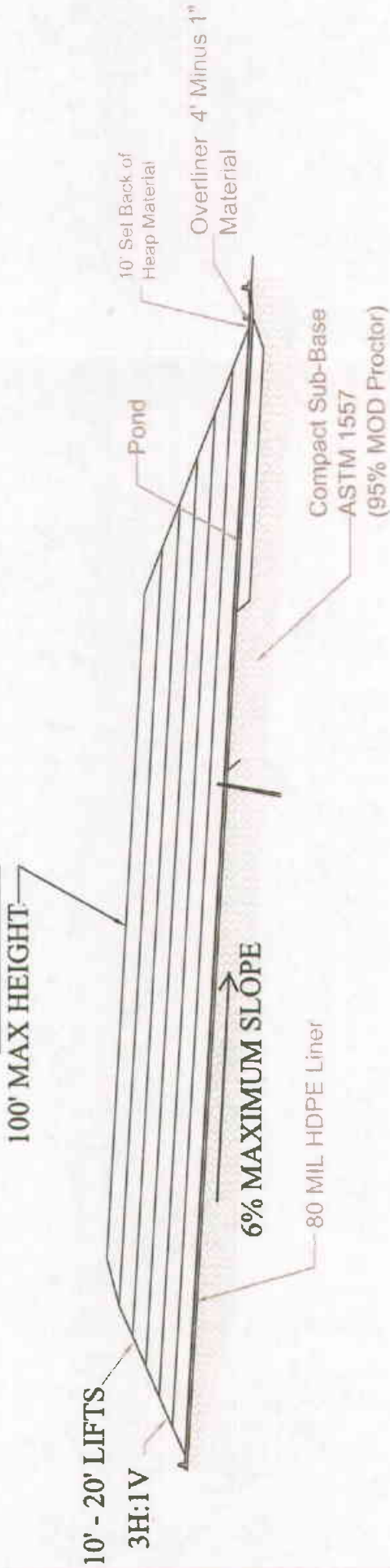


Notes: Overliner 4' is 1" minus crushed ore.
Subsequent lifts are crushed ore, run of mine,
based on field conditions.

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SIDE VIEW

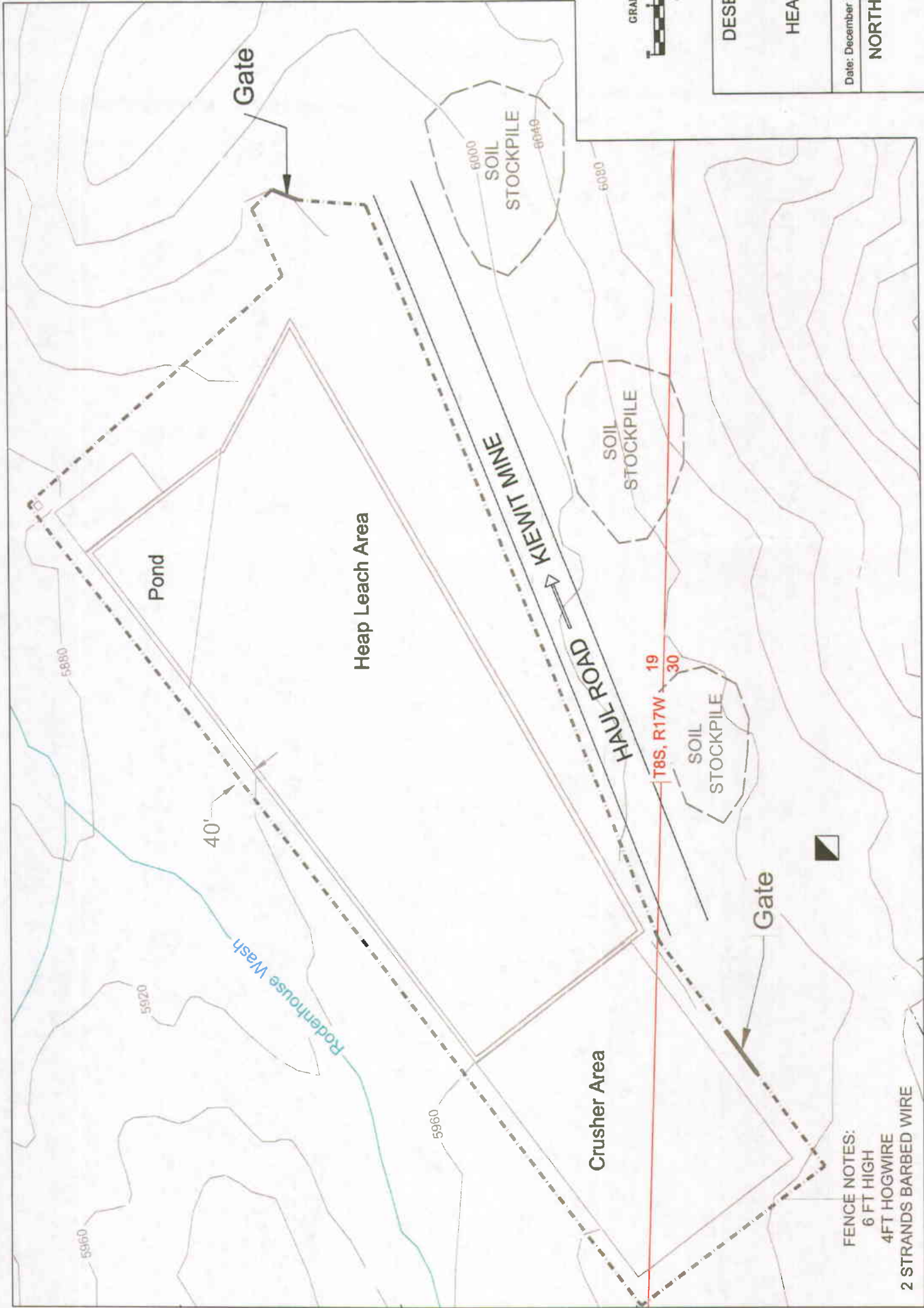


DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 15
HEAP LEACH PAD - ORE LOADING

Tooele County, Utah
Date: 4/2010
Kiewit_Fig GWP-8

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--- Fence

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DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 17
HEAP LEACH PAD - FENCE

Tooele County, Utah

Date: December 2010 Kiewit_Figure 17_12-2010

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Kaysville, UT 84037
801-544-3421



FENCE NOTES:
6 FT HIGH
4FT HOGWIRE
2 STRANDS BARBED WIRE

Appendix V

GEOCHEMICAL & ANALYTICAL DATA

DESERT HAWIL GOLD CORP.

Notice of Intention to Conduct Large Mining Operations

KIEWIT PROJECT

Tooele County, Utah

Where discrepancies exist between the main body of the NOI (text and figure) and the Appendixes, the main body of the NOI will take precedence over the appendixes.

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